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TECH CENTER



1600

RAW SEQUENCE LISTING

DATE: 05/28/2003

PATENT APPLICATION: US/09/502,426B

TIME: 15:14:18

Input Set : A:\11696-070001.txt

Output Set: N:\CRF4\05282003\I502426B.raw

3 <110> APPLICANT: Azpiroz, Ricardo
 4 Choe, Sunghwa
 5 Feldmann, Kenneth A.
 7 <120> TITLE OF INVENTION: DWF4 POLYNUCLEOTIDES, POLYPEPTIDES AND USES THEREOF
 9 <130> FILE REFERENCE: 11696-070001
 11 <140> CURRENT APPLICATION NUMBER: US 09/502,426B
 12 <141> CURRENT FILING DATE: 2000-02-11
 14 <150> PRIOR APPLICATION NUMBER: US 60/119,657
 15 <151> PRIOR FILING DATE: 1999-02-11
 17 <150> PRIOR APPLICATION NUMBER: US 60/119,658
 18 <151> PRIOR FILING DATE: 1999-02-11
 20 <160> NUMBER OF SEQ ID NOS: 30
 22 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 24 <210> SEQ ID NO: 1
 25 <211> LENGTH: 6888
 26 <212> TYPE: DNA
 27 <213> ORGANISM: Arabidopsis thaliana
 29 <400> SEQUENCE: 1

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 31 tattctgttc acatgatttg agtttggttc tcaatttgga ttccaagata attaaatatt 120
 32 aaaattcatt taaaatattt acaagtaatt aattatcttt acattgtatt gttataacaa 180
 33 aatatctatc tttggtatat gagaaaatat ggagtttgga atttataata ataaaggaaa 240
 34 taatcgattc catttggttg gattacacag ttaagttttt gtgtttcttt tgttatatgt 300
 35 atatgagtaa atcaaaaaga gtattgattg aagtgtaaac atatttcgtt atgaccccca 360
 36 aaaaaaaaaa aaaaacaaac aaacaaaccc cccccccgat atagtttttg gttctggatt 420
 37 aggttttatt gatcataatt acatgcatca tttctttgat tactatgaag attttcttac 480
 38 caattaaaaa ttcgaattca tatctcttga ttattaaatt aaatacgagt gtgaatatcc 540
 39 gtttatcgat cactccaatc atgattatga ttcttgtgct aatccagcaa attattaaca 600
 40 agagtattga gaaaaaacg aaaataagaa aagggaagaa gtagtgacc atggagtag 660
 41 tgaataatta tcaaaagaaa taagagatga caacaaaag gttgtggaat aatgggccct 720
 42 gccagctttc tctcacaatc aatatcgacc ctatttggat tttctggata ttcgttaaaa 780
 43 tttgcgataa cgattgtgaa aaatatatta tttgttagct gatctcaata ttatgttcca 840
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 45 taactatata ttatcgcgga tatatgataa caatgatata tcacaaaaca attgtctggg 960
 46 accattttga ataaactttt tctcaaacat tacgggacac tggactcgac ccttaaaata 1020
 47 cgattttaca gcgtcactag ttgagattac tagcataaag cataaaggac ccgttcaagc 1080
 48 tatttatata aagttacaaa ctgaatatag cttgaaatcc tttagaaaat tttggaatta 1140
 49 ccggttggtt tgtaaataa gatttagtgg taaacaaata tgtaaatcaa ttagtggtca 1200
 50 acatatacat aattccttac agaaaaaaca aacttaagag aagttaacat atccatatat 1260
 51 gggtagtcta tacctttcac gtatgctata ctagagacta aagaatagtt atgtgatgtc 1320
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 54 cttggattcc attcaatgat ctaaaatgca tagatctttt gggttacagt ttcgaagtcc 1500

P.6

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57 atactagtat gtgattattc caaatacata ctttgatgt ttaaacttaa tcttgtttct 1680
58 tcctacggta taaatattaa tcacgaggt aaaaaaagtt ttgtcttatt ttgcgcatgc 1740
59 atgaaggata aacctaatga ctttaatttt ttgaaaatgt aaccttttta ctcatagatt 1800
60 aattaccgta tgtttttggt gccataatga cagcctctac aactgtgata gtcaattttt 1860
61 tctgcaaata ttaaattagg aattcaatgc tactatcaat agaagaaaca gctgagtatt 1920
62 acattttaat ttaaagacaa aatttttgaa aaatgttata atttctaaca atattattaa 1980
63 aatatgatgc ctataatgta tttcctatgt tcttaaaata ttttttttta tatttagtta 2040
64 taaatacatt atgaaccaat aatagttggt gaattcaaat atctccatta atattttttg 2100
65 aaatctacaa attattaata tttagtcaat aacaatgcat agaaagtcc aaaaaaatt 2160
66 ttgttaacag aaacttccaa attttttttt tttatggaac aagaaataac agatagaaaa 2220
67 ctattttggt gtggaatgga agtagtaata tacattaagc aaatttttaa aaattatata 2280
68 agcctatacg cgtcaaaagt atgttatcta gtaggtgtaa ttaataatgc atgggtgcgat 2340
69 tcagaattgg gacaacaatg aaaacggaat taaaatatta actttaaaat aaataaaaaat 2400
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102 cttttgggat gggttttgaa acattcgaat ttatcgacgg agcaattct cgatctcatt 4380
103 cttagtttgt tatttgccgg acatgagact tcttctgtag ccattgctct cgctatcttc 4440

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104 ttcttgcaag cttgccctaa agccgttgaa gagcttaggg taagataatt ataacagcac 4500
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106 aatatacgat gaaaaaagta tgtatatatta attgtcacta attttatggt tattgattta 4620
107 tacttttgaa ggaagagcat cttgagatcg cgagggccaa gaaggaacta ggagagtcag 4680
108 aattaaattg ggatgattac aagaaaatgg actttactca atgtgtatgt tactatcatt 4740
109 ctcatatttt attctatggt catatgattt atgatgaaac caaaattatt gatttttttt 4800
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114 ctgagccgta catttgata attctcgta tgaccaacct aatctcttta atccttgag 5100
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143 tcatctttag gatcctcttc tagacgagta aagtaatcct cgttaccaag caatggtctc 6840
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146 <210> SEQ ID NO: 2

147 <211> LENGTH: 513

148 <212> TYPE: PRT

149 <213> ORGANISM: Arabidopsis thaliana

151 <400> SEQUENCE: 2

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153 1 5 10 15

154 Ser Leu Leu Ser Leu Leu Leu Phe Leu Ile Leu Leu Lys Arg Arg Asn

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155          20          25          30
156 Arg Lys Thr Arg Phe Asn Leu Pro Pro Gly Lys Ser Gly Trp Pro Phe
157          35          40          45
158 Leu Gly Glu Thr Ile Gly Tyr Leu Lys Pro Tyr Thr Ala Thr Thr Leu
159          50          55          60
160 Gly Asp Phe Met Gln Gln His Val Ser Lys Tyr Gly Lys Ile Tyr Arg
161 65          70          75          80
162 Ser Asn Leu Phe Gly Glu Pro Thr Ile Val Ser Ala Asp Ala Gly Leu
163          85          90          95
164 Asn Arg Phe Ile Leu Gln Asn Glu Gly Arg Leu Phe Glu Cys Ser Tyr
165          100         105         110
166 Pro Arg Ser Ile Gly Gly Ile Leu Gly Lys Trp Ser Met Leu Val Leu
167          115         120         125
168 Val Gly Asp Met His Arg Asp Met Arg Ser Ile Ser Leu Asn Phe Leu
169          130         135         140
170 Ser His Ala Arg Leu Arg Thr Ile Leu Leu Lys Asp Val Glu Arg His
171 145         150         155         160
172 Thr Leu Phe Val Leu Asp Ser Trp Gln Gln Asn Ser Ile Phe Ser Ala
173          165         170         175
174 Gln Asp Glu Ala Lys Lys Phe Thr Phe Asn Leu Met Ala Lys His Ile
175          180         185         190
176 Met Ser Met Asp Pro Gly Glu Glu Glu Thr Glu Gln Leu Lys Lys Glu
177          195         200         205
178 Tyr Val Thr Phe Met Lys Gly Val Val Ser Ala Pro Leu Asn Leu Pro
179          210         215         220
180 Gly Thr Ala Tyr His Lys Ala Leu Gln Ser Arg Ala Thr Ile Leu Lys
181 225         230         235         240
182 Phe Ile Glu Arg Lys Met Glu Glu Arg Lys Leu Asp Ile Lys Glu Glu
183          245         250         255
184 Asp Gln Glu Glu Glu Glu Val Lys Thr Glu Asp Glu Ala Glu Met Ser
185          260         265         270
186 Lys Ser Asp His Val Arg Lys Gln Arg Thr Asp Asp Asp Leu Leu Gly
187          275         280         285
188 Trp Val Leu Lys His Ser Asn Leu Ser Thr Glu Gln Ile Leu Asp Leu
189          290         295         300
190 Ile Leu Ser Leu Leu Phe Ala Gly His Glu Thr Ser Ser Val Ala Ile
191 305         310         315         320
192 Ala Leu Ala Ile Phe Phe Leu Gln Ala Cys Pro Lys Ala Val Glu Glu
193          325         330         335
194 Leu Arg Glu Glu His Leu Glu Ile Ala Arg Ala Lys Lys Glu Leu Gly
195          340         345         350
196 Glu Ser Glu Leu Asn Trp Asp Asp Tyr Lys Lys Met Asp Phe Thr Gln
197          355         360         365
198 Cys Val Ile Asn Glu Thr Leu Arg Leu Gly Asn Val Val Arg Phe Leu
199          370         375         380
200 His Arg Lys Ala Leu Lys Asp Val Arg Tyr Lys Gly Tyr Asp Ile Pro
201 385         390         395         400
202 Ser Gly Trp Lys Val Leu Pro Val Ile Ser Ala Val His Leu Asp Asn
203          405         410         415

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204 Ser Arg Tyr Asp Gln Pro Asn Leu Phe Asn Pro Trp Arg Trp Gln Gln
205          420          425          430
206 Gln Asn Asn Gly Ala Ser Ser Ser Gly Ser Gly Ser Phe Ser Thr Trp
207          435          440          445
208 Gly Asn Asn Tyr Met Pro Phe Gly Gly Gly Pro Arg Leu Cys Ala Gly
209          450          455          460
210 Ser Glu Leu Ala Lys Leu Glu Met Ala Val Phe Ile His His Leu Val
211 465          470          475          480
212 Leu Lys Phe Asn Trp Glu Leu Ala Glu Asp Asp Gln Pro Phe Ala Phe
213          485          490          495
214 Pro Phe Val Asp Phe Pro Asn Gly Leu Pro Ile Arg Val Ser Arg Ile
215          500          505          510
216 Leu
219 <210> SEQ ID NO: 3
220 <211> LENGTH: 24
221 <212> TYPE: DNA
222 <213> ORGANISM: Artificial Sequence
224 <220> FEATURE:
225 <223> OTHER INFORMATION: Primer: D4OVERF
227 <400> SEQUENCE: 3
228 atgttcgaaa cagagcatca tact                      24
230 <210> SEQ ID NO: 4
231 <211> LENGTH: 21
232 <212> TYPE: DNA
233 <213> ORGANISM: Artificial Sequence
235 <220> FEATURE:
236 <223> OTHER INFORMATION: Primer: D4PRM
238 <400> SEQUENCE: 4
239 cctcgatcaa agagagagag a                      21
241 <210> SEQ ID NO: 5
242 <211> LENGTH: 29
243 <212> TYPE: DNA
244 <213> ORGANISM: Artificial Sequence
246 <220> FEATURE:
247 <223> OTHER INFORMATION: Primer: D4RTF
249 <400> SEQUENCE: 5
250 ttcttggtga aaccatcggt tatcttaaa                29
252 <210> SEQ ID NO: 6
253 <211> LENGTH: 26
254 <212> TYPE: DNA
255 <213> ORGANISM: Artificial Sequence
257 <220> FEATURE:
258 <223> OTHER INFORMATION: Primer: D4RTR
260 <400> SEQUENCE: 6
261 tatgataagc agttcctggt agattt                    26
263 <210> SEQ ID NO: 7
264 <211> LENGTH: 21
265 <212> TYPE: DNA
266 <213> ORGANISM: Artificial Sequence

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RAW SEQUENCE LISTING ERROR SUMMARY
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:25; Xaa Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22
Seq#:25; Xaa Pos. 23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,42,43,46
Seq#:25; Xaa Pos. 48,50,56,57,58,61,62,63,64,65,66,67,68,72,82,92,93,94,95
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Seq#:26; Xaa Pos. 4,8,10
Seq#:28; Xaa Pos. 1,13,15,16